



#5

SEQUENCE LISTING

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<120> Novel Fibroblast Growth Factor and Nucleic Acids
Encoding Same

<130> 15966-557 CIP2

<140> 09/817,814

<141> 2001-03-26

<150> 09/609,543

<151> 2000-07-03

<150> 09/494,585

<151> 2000-01-31

<150> 60/145,899

<151> 1999-07-27

<160> 25

<170> PatentIn Ver. 2.1

<210> 1

<211> 633

<212> DNA

<213> Homo sapiens

<400> 1

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aggagcgcgg cggagcggag cgcgcgcggc gggccggggg ctgcgagct ggcgcacctg 180
cacggcatcc tgcgcgcggc gcagctctat tgccgcaccg gcttccacct gcagatcctg 240
cccgcaggca gcgtgcaggc caccgcggcag gaccacagcc tcttcggtat cttggaattc 300
atcagtgtgg cagtgggact ggtcagtatt agaggtgtgg acagtggctc ctatcttgga 360
atgaatgaca aaggagaact ctatggatca gagaaactta cttccgaatg catctttagg 420
gagcagtttg aagagaactg gtataacacc tattcatcta acatatataa acatggagac 480

actggccgca ggtattttgt ggcacttaac aaagacggaa ctccaagaga tggcgccagg 540
 tccaagaggc atcagaaatt tacacatttc ttacctagac cagtggatcc agaaagagtt 600
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<210> 2

<211> 211

<212> PRT

<213> Homo sapiens

<400> 2

Met Ala Pro Leu Ala Glu Val Gly Gly Phe Leu Gly Gly Leu Glu Gly
 1 5 10 15

Leu Gly Gln Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala Gly Glu
 20 25 30

Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala Ala Glu Arg Ser Ala
 35 40 45

Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His Leu His Gly Ile Leu
 50 55 60

Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu
 65 70 75 80

Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu Phe Gly
 85 90 95

Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile Arg Gly
 100 105 110

Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu Leu Tyr
 115 120 125

Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu
 130 135 140

Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp
 145 150 155 160

Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg
 165 170 175

Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro
 180 185 190

Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asp Leu Leu

195

200

205

Met Tyr Thr

210

<210> 3

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:FGF-CX Forward
Primer

<400> 3

ctcgtcagat ctccaccatg gctcccttag ccgaagtc

38

<210> 4

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:FGF-CX Reverse
Primer

<400> 4

ctcgtcctcg agagtgtaca tcagtaggtc cttg

34

<210> 5

<211> 424

<212> DNA

<213> Homo sapiens

<400> 5

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 tagaaatctt cccaatggt actatccagg gaaccaggaa agaccacagc cgatttggca 120
 ttctggaatt tatcagtata gcagtgggcc tggtcagcat tcgaggcgtg gacagtggac 180
 tctacctcgg gatgaatgag aagggggagc tgtatggatc agaaaaacta acccaagagt 240
 gtgtattcag agaacagttc gaagaaaact ggtataatac gtactcgtca aacctatata 300
 agcacgtgga cactggaagg cgatactatg ttgcattaaa taaagatggg accccgagag 360
 aagggactag gactaaacgg caccagaaat tcacacattt tttacctaga ccagtggacc 420
 ccga 424

<210> 6
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 6
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 ggtggaagcc ggtgcggaag tagagctgcc ggcgcgagc atgccgtgca ggtgcgccag 120
 ctgcgagcgc cccggccgc gcgcgcgcct ccgtccgcc gcgtccctgc gctcgccag 180
 cagcggcggc cgctccccgg caggaggcaa caggaaatgc gaaccacct gctggcccaa 240
 gccctccagg ccgccagaa agccccgac ttcggctaag ggagccat 288

<210> 7
 <211> 255
 <212> DNA
 <213> Homo sapiens

<400> 7
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 taagaaatgt gtaaatttct gatgcctctt ggacctggcg ccatctcttg gagttccgtc 120
 tttgttaagt gccacaaaat acctgcggcc agtgtctcca tgtttatata tgtagatga 180
 ataggtgtta taccagttct cttcaaactg ctccctaaag atgcattcgg aagtaagttt 240
 ctctgaaag agaga 255

<210> 8
 <211> 106
 <212> DNA
 <213> Homo sapiens

<400> 8
 ctgatccata gagttctcct ttgtcattca ttccaagata gagaccactg tccacacctc 60
 taatactgac cagtcccact gccacactga tgaattccaa gatacc 106

<210> 9
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 9
 Met Ala Pro Leu Gly Glu Val Gly Asn Tyr Phe Gly Val Gln Asp Ala
 1 5 10 15
 Val Pro Phe Gly Asn Val Pro Val Leu Pro Val Asp Ser Pro Val Leu
 20 25 30

Leu Ser Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly
 35 40 45
 Pro Ala Val Thr Asp Leu Asp His Leu Lys Gly Ile Leu Arg Arg Arg
 50 55 60
 Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly
 65 70 75 80
 Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu
 85 90 95
 Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser
 100 105 110
 Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu
 115 120 125
 Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp
 130 135 140
 Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg
 145 150 155 160
 Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr
 165 170 175
 Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val
 180 185 190
 Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu
 195 200 205

<210> 10

<211> 205

<212> PRT

<213> Mus musculus

<400> 10

Met Ala Pro Leu Gly Glu Val Gly Ser Tyr Phe Gly Val Gln Asp Ala
 1 5 10 15
 Val Pro Phe Gly Asn Val Pro Val Leu Pro Val Asp Ser Pro Val Leu
 20 25 30
 Leu Asn Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly
 35 40 45

50	55	60
Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly		
65	70	75 80
Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu		
	85	90 95
Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser		
	100	105 110
Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu		
	115	120 125
Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp		
	130	135 140
Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg		
	145	150 155 160
Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr		
	165	170 175
Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val		
	180	185 190
Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu		
	195	200 205
<210> 12		
<211> 208		
<212> PRT		
<213> Xenopus laevis		
<400> 12		
Met Ala Pro Leu Ala Asp Val Gly Thr Phe Leu Gly Gly Tyr Asp Ala		
1	5	10 15
Leu Gly Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala Lys Asp Ser		
	20	25 30
Pro Leu Leu Phe Asn Asp Pro Leu Ala Gln Ser Glu Arg Leu Ser Arg		
	35	40 45
Ser Ala Pro Ser Asp Leu Ser His Leu Gln Gly Ile Leu Arg Arg Arg		
	50	55 60

Gln	Leu	Tyr	Cys	Arg	Thr	Gly	Phe	His	Leu	Gln	Ile	Leu	Pro	Asp	Gly	65	70	75	80
Asn	Val	Gln	Gly	Thr	Arg	Gln	Asp	His	Ser	Arg	Phe	Gly	Ile	Leu	Glu	85	90	95	
Phe	Ile	Ser	Val	Ala	Ile	Gly	Leu	Val	Ser	Ile	Arg	Gly	Val	Asp	Thr	100	105	110	
Gly	Leu	Tyr	Leu	Gly	Met	Asn	Asp	Lys	Gly	Glu	Leu	Phe	Gly	Ser	Glu	115	120	125	
Lys	Leu	Thr	Ser	Glu	Cys	Ile	Phe	Arg	Glu	Gln	Phe	Glu	Glu	Asn	Trp	130	135	140	
Tyr	Asn	Thr	Tyr	Ser	Ser	Asn	Leu	Tyr	Lys	His	Gly	Asp	Ser	Gly	Arg	145	150	155	160
Arg	Tyr	Phe	Val	Ala	Leu	Asn	Lys	Asp	Gly	Thr	Pro	Arg	Asp	Gly	Thr	165	170	175	
Arg	Ala	Lys	Arg	His	Gln	Lys	Phe	Thr	His	Phe	Leu	Pro	Arg	Pro	Val	180	185	190	
Asp	Pro	Glu	Lys	Val	Pro	Glu	Leu	Tyr	Lys	Asp	Leu	Met	Gly	Tyr	Ser	195	200	205	

<210> 13

<211> 26

<212> PRT

<213> Homo sapiens

<400> 13

Gln	Asp	His	Ser	Leu	Phe	Gly	Ile	Leu	Glu	Phe	Ile	Ser	Val	Ala	Val	1	5	10	15
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---	---	----	----

Gly	Leu	Val	Ser	Ile	Arg	Gly	Val	Asp	Ser	20	25
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	----

<210> 14

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:pSec-V5-His
Forward Primer

<400> 14

ctcgctcctcg agggtaagcc tatccctaac

30

<210> 15

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:pSec-V5-His
Reverse Primer

<400> 15

ctcgtcgggc ccctgatcag cgggtttaa c

31

<210> 16

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Oligonucleotide
linker

<400> 16

catggtcagc ctac

14

<210> 17

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Oligonucleotide
linker

<400> 17

tcgagtaggc tgac

14

<210> 18
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Ag81b Forward
Primer

<400> 18
ggaccacagc ctcttcggtg

20

<210> 19
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Ag81b Reverse
Primer

<400> 19
tgtccacacc tctaatactg accag

25

<210> 20
<211> 26
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Ag81b Probe
Primer

<400> 20
cccactgccg cactgatgaa ttccaa

26

<210> 21
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Ag81 Forward
Primer

<400> 21
aggcagaagc gggagataga t 21

<210> 22
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Ag81 Reverse
Primer

<400> 22
agcagcttta cctcattcac aatg 24

<210> 23
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Ag81 Probe
Primer

<400> 23
ccatctacat ccaccaccag ttgcagaa 28

<210> 24
<211> 207
<212> PRT
<213> Homo sapiens

<400> 24
Met Ala Glu Val Gly Gly Val Phe Ala Ser Leu Asp Trp Asp Leu His
1 5 10 15

Gly Phe Ser Ser Ser Leu Gly Asn Val Pro Leu Ala Asp Ser Pro Gly
20 25 30

Phe Leu Asn Glu Arg Leu Gly Gln Ile Glu Gly Lys Leu Gln Arg Gly
35 40 45

Ser Pro Thr Asp Phe Ala His Leu Lys Gly Ile Leu Arg Arg Arg Gln
50 55 60

Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly Thr
 65 70 75 80
 Val His Gly Thr Arg His Asp His Ser Arg Phe Gly Ile Leu Glu Phe
 85 90 95
 Ile Ser Leu Ala Val Gly Leu Ile Ser Ile Arg Gly Val Asp Ser Gly
 100 105 110
 Leu Tyr Leu Gly Met Asn Glu Arg Gly Glu Leu Tyr Gly Ser Lys Lys
 115 120 125
 Leu Thr Arg Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr
 130 135 140
 Asn Thr Tyr Ala Ser Thr Leu Tyr Lys His Ser Asp Ser Glu Arg Gln
 145 150 155 160
 Tyr Tyr Val Ala Leu Asn Lys Asp Gly Ser Pro Arg Glu Gly Tyr Arg
 165 170 175
 Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val Asp
 180 185 190
 Pro Ser Lys Leu Pro Ser Met Ser Arg Asp Leu Phe His Tyr Arg
 195 200 205

<210> 25
 <211> 814
 <212> DNA
 <213> Homo sapiens

<400> 25
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 gtaaccgggc cttaactttt tgcgctcgtt ttgctataat ttttctctat ccacctccat 120
 cccaccccca caacactctt tactgggggg gtcttttgtg ttccggatct cccctccat 180
 ggctccctta gccgaagtcg ggggctttct gggcggcctg gagggcttgg gccagcaggt 240
 gggttcgcat ttctgttgct ctctgcccgg ggagcggccg ccgctgctgg gcgagcgcag 300
 gagcgcgcg gagcggagcg cgcgcggcgg gccgggggct gcgcagctgg cgcacctgca 360
 cggcatcctg cgccgccggc agctctattg ccgcaccggc ttccacctgc agatcctgcc 420
 cgacggcagc gtgcagggca cccggcagga ccacagcctc ttcggtatct tggaattcat 480
 cagtgtggca gtgggactgg tcagtattag aggtgtggac agtggctctt atcttggaa 540
 gaatgacaaa ggagaactct atggatcaga gaaacttact tccgaatgca tctttaggga 600
 gcagtttgaa gagaactggt ataacaoccta ttcattctaac atatataaac atggagacac 660
 tggccgcagg tattttgtgg cacttaacaa agacggaact ccaagagatg gcgccaggtc 720
 caagaggcat cagaaattta cacatttctt acctagacca gtggatccag aaagagttcc 780
 agaattgtac aaggacctac tgatgtacac ttga 814

[illegible]